

IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (currently amended) A system for protecting a destination block in a disk array from being overwritten, the system comprising:

a data mover;

a controller coupled to the data mover, the controller ~~operable~~ configured to detect an application write request to the destination block and to stall the application write request while a data mover operation initiated by the data mover is terminated.

2. (original) The system of claim 1 wherein the data mover is disposed in the disk array.

3. (original) The system of claim 1 wherein the controller is disposed in the disk array.

4. (currently amended) The system of claim 1 wherein the controller is ~~operable~~ configured to complete the application write request upon a termination of the data mover operation.

5. (original) The system of claim 1, wherein the data mover provides an extent list including the destination block to the controller.

6. (currently amended) The system of claim 1, wherein the controller is ~~operable~~ configured to send a request to the data mover to initiate a termination of the data mover operation ~~termination~~.

7. (currently amended) A system for protecting a destination block in a disk array coupled to a storage area network from being overwritten by a server write request to the destination block, the system comprising:

a data mover;

a controller coupled to the data mover, the controller ~~operable~~ configured to detect the server write request and to stall the server write request while a data mover operation is terminated.

8. (currently amended) A block protection system comprising:

a storage device;

a data mover;

a controller coupled to the data mover, the controller ~~operable~~ configured to detect a write request to a destination block of ~~[[a]]~~ the storage device and to stall the write request while a data mover operation is terminated.

9. (currently amended) A method for ensuring the integrity of a storage device comprising:

initiating a data mover operation to move an object to the storage device;

(a) deriving an extent list describing destination blocks on the storage device, wherein the destination blocks comprise a location to which an the object is being moved by ~~a third-party copy~~ the data mover operation;

(b) transmitting the extent list to a disk array;

(c) verifying the extent list ~~and returning to step (a) if the extent list is not valid,~~
else;

~~(d) starting the third-party copy operation;~~

(e) monitoring for a write request from an application server during the data mover operation;

(f) ~~stalling the write request~~ if a write request is ~~received~~ detected during the monitoring for the write request, stalling the write request and requesting a termination of the ~~third-party copy~~ data mover operation;

terminating the data mover operation in response to the requesting the termination of the data mover operation; and

(g) completing the write request after the upon termination of the ~~third party copy~~ data mover operation.

10. (currently amended) The method of claim 9 wherein ~~steps (a), (b) and (c) the deriving the extent list, the transmitting the extent list to the disk array, and the verifying the extent list~~ are executed by an application program.

11. (currently amended) The method of claim 9 further comprising:
releasing the extent list at the disk array after ~~the execution of step (g) the completing the write request; and~~
re-verifying the extent list after the releasing the extent list; and
repeating steps (a) through (g) if the extent list is not valid.

12. (currently amended) A computer readable medium containing computer readable instructions, ~~the medium comprising wherein the computer readable instructions are computer executable to implement:~~

initiating a data mover operation to move an object to the storage device;
~~a code segment for (a) deriving an extent list describing destination blocks on the storage device, wherein the destination blocks comprise a location to which an the object is being moved by a third party copy the data mover operation;~~
~~a code segment for (b) transmitting the extent list to a disk array;~~
~~a code segment for (c) verifying the extent list and returning to step (a) if the extent list is not valid, else;~~
~~a code segment for (d) starting the third party copy operation;~~
~~a code segment for (e) monitoring for a write request from an application server during the data mover operation;~~
a code segment for (f) stalling the write request if a write request is received detected during the monitoring for the write request, stalling the write request and requesting a termination of the ~~third party copy~~ data mover operation;

terminating the data mover operation in response to the requesting the termination of the data mover operation; and

~~a code segment for (g) completing the write request after the~~ upon termination of the ~~third party copy data mover~~ operation.

13. (currently amended) The computer readable medium of claim 1 ~~further comprising;~~ wherein the computer readable instructions are further computer executable to implement:

~~a code segment for releasing the extent list at the disk array after the~~ completing the write request is ~~completed upon termination of the third party copy operation; and~~

re-verifying the extent list after the releasing the extent list.

~~a code segment for repeating steps (a) through (g) if a re-verified extent list is not valid.~~

14. (new) The system of claim 1,
wherein the data mover is external to the controller.

15. (new) A method for protecting a block in a disk array from being overwritten, the method comprising:

using a data mover to initiate a data mover operation involving the block;

using a controller to detect an application write request to the block, wherein the controller is coupled to the data mover; and

using the controller to stall the application write request until the data mover operation is terminated.

16. (new) The method of claim 15, further comprising:

the controller completing the application write request upon a termination of the data mover operation.

17. (new) The method of claim 15, further comprising:

providing an extent list including the block from the data mover to the controller.

18. (new) The method of claim 15, further comprising:
sending a request from the controller to the data mover to initiate a termination of the data mover operation.
19. (new) The method of claim 15,
wherein the data mover is external to the controller.
20. (new) A computer-readable medium comprising computer-executable instructions for protecting a block in a disk array from being overwritten, wherein the instructions are executable to implement:
using a data mover to initiate a data mover operation involving the block;
using a controller to detect an application write request to the block, wherein the controller is coupled to the data mover; and
using the controller to stall the application write request until the data mover operation is terminated.
21. (new) The computer-readable medium of claim 20, wherein the instructions are further executable to implement:
the controller completing the application write request upon a termination of the data mover operation.
22. (new) The computer-readable medium of claim 20, wherein the instructions are further executable to implement:
providing an extent list including the block from the data mover to the controller.
23. (new) The computer-readable medium of claim 20, wherein the instructions are further executable to implement:
sending a request from the controller to the data mover to initiate a termination of the data mover operation.

24. (new) The computer-readable medium of claim 20,
wherein the data mover is external to the controller.
25. (new) A system for protecting a block in a disk array from being overwritten, the system comprising:
- means for using a data mover to initiate a data mover operation involving the block;
 - means for using a controller to detect an application write request to the block, wherein the controller is coupled to the data mover; and
 - means for using the controller to stall the application write request until the data mover operation is terminated.